

Abstract

The present invention relates to a digital image recognition system having a minimum constructional length of less than one millimetre. The image recognition system hereby comprises a microlens array, a detector array and optionally a pinhole array. The mode of operation of this image recognition system is based on a separate imaging of different solid angle segments of the object space by means of a multiplicity of parallel optical channels. The optical axes of the individual optical channels thereby have different inclinations so that they represent a function of the distance of the optical channel from the centre of the side of the image recognition system orientated towards the image, as a result of which the ratio of the size of the field of view to the image field size can be determined specifically. Detectors are thereby used with such high sensitivity that the detectors have a large pitch with a small active surface area.